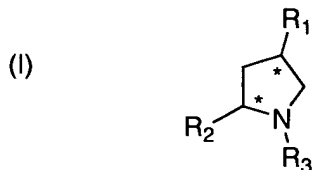


CLAIMS

What is claimed is:

- 5 1. A compound having the structure:



- 10 or a stereoisomer or pharmaceutically acceptable salt thereof,
 wherein

R₁ is -L₁-J;

R₂ is selected from the group consisting of -(C=O)-W and -(C=O)-NH-(CH₂)_y-W;

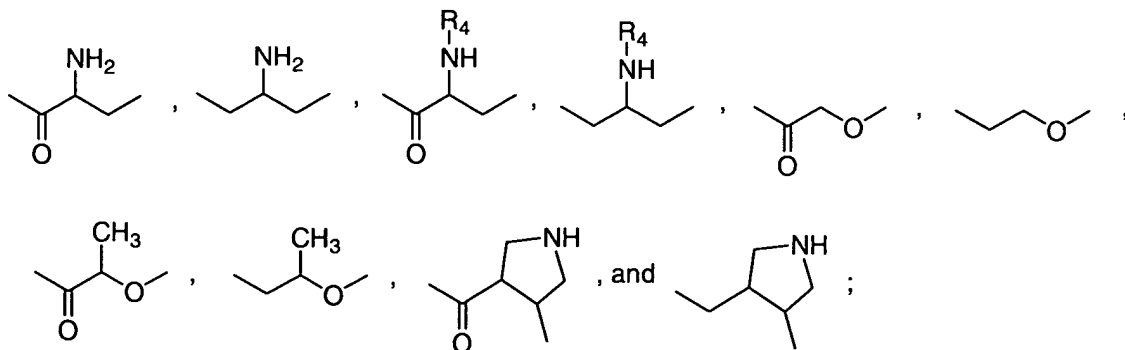
R₃ is -L₂-Q;

- 15 L₁ is a linker selected from the group consisting of -(CH₂)_y-, -O-(CH₂)_y-, -O-,
-NH-(CH₂)_y-, -(C=O)(CH₂)_y-, -(C=O)-O-(CH₂)_y-, -CH₂(C=O)NH-, and -(C=O)-NH-(CH₂)_y-;

- J is a ring structure selected from the group consisting of substituted or
unsubstituted aromatic carbocyclic rings, substituted or unsubstituted non-aromatic carbocyclic rings,
substituted or unsubstituted aromatic fused carbobicyclic ring groups, substituted or unsubstituted
20 aromatic carbocyclic ring groups wherein the rings are joined by a bond or -O-, and substituted or
unsubstituted aromatic fused heterobicyclic ring groups; wherein in each instance the rings comprise 5
or 6 ring atoms;

 W is a heteroatom unit with at least one cationic center, hydrogen bond donor or
hydrogen bond acceptor wherein at least one atom is N;

- 25 L₂ is a linker selected from the group consisting of



Q is an aromatic carbocyclic ring selected from the group consisting of phenyl, substituted phenyl, naphthyl and substituted naphthyl;

R₄ is -R₅ or -R₅-R₆;

R₅ is from one to three amino acid residues or an amine capping group,

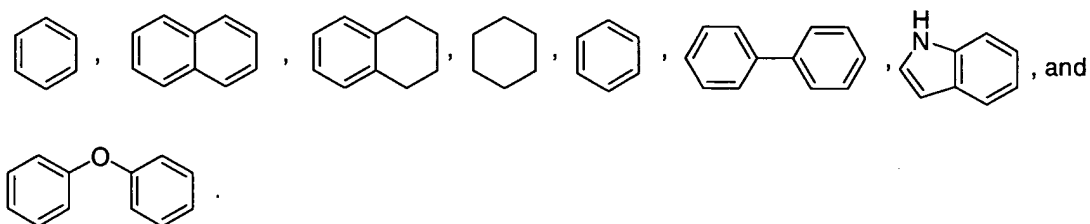
5 provided that if R₆ is present, R₅ is at least one amino acid residue;

R₆ is H or an amine capping group; and

y is at each occurrence independently from 0 to 6;

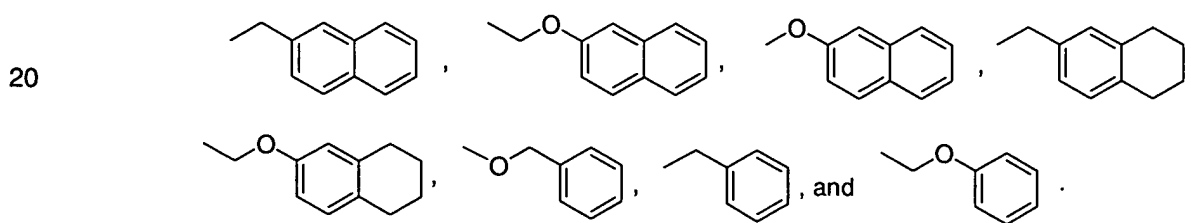
wherein the carbon atoms marked with an asterisk can have any stereochemical configuration.

10 2. The compound of claim 1 wherein J is a substituted or unsubstituted ring structure selected from the group consisting of

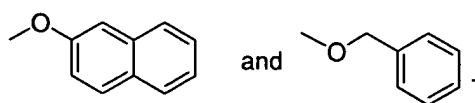


15 3. The compound of claim 1 wherein at least one ring comprising J is functionalized with one or more halogen, alkyl or aryl groups.

4. The compound of claim 1 wherein R₁ is selected from the group consisting of

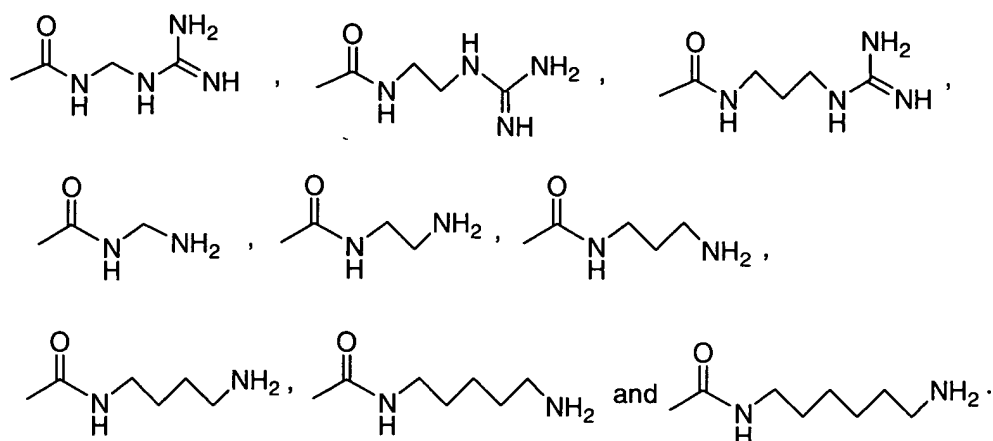


25 5. The compound of claim 4 wherein R₁ is selected from the group consisting of



6. The compound of claim 1 wherein R_2 is $-(C=O)-NH-(CH_2)_y-W$.

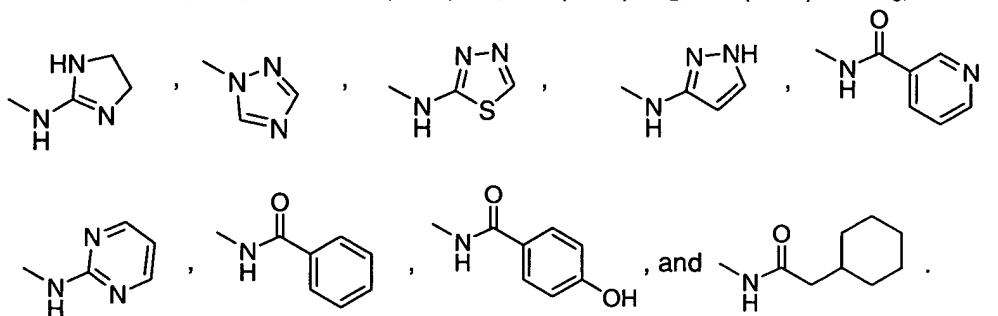
7. The compound of claim 6 wherein R_2 is selected from the group consisting of



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8. The compound of claim 1 wherein W is a cationic center selected from the group consisting of NH_2 and $NH(C=NH)NH_2$.

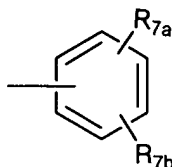
9. The compound of claim 1 wherein W is selected from the group consisting of $-NHCOCH_3$, $-CONHCH_3$, $-NH(C=NH)NHMe$, $-NH(C=NH)NHEt$, $-NH(C=NH)NHPr$, $-NH(C=NH)NHPr-I$, $-NH(C=NH)NH_2$, $-NH(C=O)OCH_3$, $-NH(C=O)CH_3$, $NH(C=O)NH_2$, $-NH(C=O)NHCH_3$,



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10. The compound of claim 1 where Q is



wherein R_{7a} and R_{7b} are optional ring substituents, and when one or both are present, are the same or different and independently hydroxyl, halogen, alkyl, or aryl groups attached directly or through an ether linkage.

11. The compound of claim 10 wherein the alkyl group is -CH₃ or -OCH₃.

12. The compound of claim 1 wherein R₅ or R₆ is an amine capping group selected from the group consisting of hexyl, hexanoyl, heptanoyl, acetyl, phenylacetyl, cyclohexylacetyl, propylpentanoyl, naphthylacetyl, cinnamoyl, benzyl, benzoyl, benzyloxycarbonyl, cinnamoyl, 12-Ado, 7'-amino heptanoyl, 6-Ahx, Amc and 8-Aoc.

13. The compound of claim 1 wherein R₃ is a D-amino acid with an aromatic carbocyclic ring selected from the group consisting of phenyl, substituted phenyl, naphthyl and substituted naphthyl.

14. The compound of claim 1 wherein R₃ is a D-amino acid with an amine capping group and an aromatic carbocyclic ring selected from the group consisting of phenyl, substituted phenyl, naphthyl and substituted naphthyl.

15. The compound of claim 1 wherein R₃ is from two to four amino acid residues including a D-amino acid with an aromatic carbocyclic ring selected from the group consisting of phenyl, substituted phenyl, naphthyl and substituted naphthyl wherein the D-amino acid is bonded to the ring nitrogen.

16. The compound of claim 1 wherein R₃ is from two to four amino acid residues including a D-amino acid with an aromatic carbocyclic ring selected from the group consisting of phenyl, substituted phenyl, naphthyl and substituted naphthyl and bonded to the ring nitrogen and wherein the N-terminus amino acid residue has an amine capping group.

17. The compound of claim 1 wherein R₃ comprises a D-amino acid is selected from the group consisting of Phe, Phe(2-Cl), Phe(4-Cl), Phe(2,4-diCl), Phe(2,4-diF), Phe(3,4-diCl), Phe(4-NO₂),

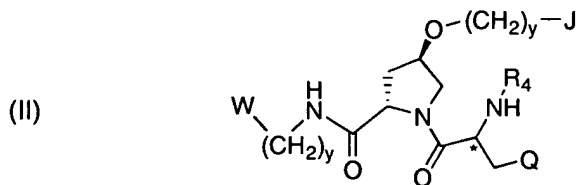
Phe(4-Me), Phe(4-Phenyl), HPhe, pF-Phe, Phe(4-Br), Phe(4-CF₃), Phe(3,4-diF), Phe(4-I), Phe(2-Cl, 4-Me), Phe(2-Me, 4-Cl), Phe(2-F, 4-Cl), Phe(2,4-diMe), Phe(2-Cl, 4-CF₃), and Phe(3,4-di-OMe).

18. The compound of claim 1 wherein R₃ comprises a D-amino acid is selected from the group consisting of Pgl, Trp, Nal 1, Nal 2, Bip, Dip, Bpa, Ser(Bzl), Ser(2-Naphthyl), Ser(Phenyl), Ser(4-Cl-Phenyl), Ser(2-Cl-Phenyl), Ser(p-Cl-Phenyl), Lys(Z), Lys(Z-2'Br), Lys(Bz), Thr(Bzl), Tic, Tiq, Cys(Bzl), Tyr(2,6-DiCl-Bzl) and Tyr(Bzl).

19. The compound of claim 1 wherein R₅ is from one to three amino acid residues selected from the group of L-amino acids consisting of Abu, 2-Abz, 3-Abz, 4-Abz, 1-Ach, Acp, Aib, Ala, Amb, Arg(Tos), Asp(anilino), Asp(3-Cl-anilino), Asp(3,5-diCl-anilino), 11-Aun, AVA, Beta-hHyp(Bzl), Cha, Chg, Cmpi, Disc, Dpr(beta-Ala), GAA, GBZA, B-Gpa, GVA(Cl), His, hSer, Ser(Bzl), Tic, hHyp, Hyp(Bzl), Inp, 2-Naphthylacetyl, Nle, (Nlys)Gly, Ochx, Pip, 4-phenylPro, 5-phenylPro, Pyr, Sar, Tle, Tiq, Atc, Igl, Hyp(O-2-Naphthyl), Hyp(O-Phenyl), 2-Aic, Idc, 1-Aic, Beta-homoSer(Bzl), Ser(O-2-Naphthyl), Ser(O-Phenyl), Ser(O-4-Cl-Phenyl), Ser(O-2-Cl-Phenyl), Thr(Bzl), Tic, Beta-homoThr(Bzl), Thr(O-2-Naphthyl), Thr(O-Phenyl), Thr(O-4-Cl-Phenyl) and Thr(O-2-Cl-Phenyl), Tyr, Leu, Ile, Val and Beta-Ala.

20. The compound of claim 1 wherein R₃ comprises an amine capping group selected from the group consisting of hexyl, hexanoyl, heptanoyl, acetyl, phenylacetyl, cyclohexylacetyl, propylpentanoyl, naphthylacetyl, cinnamoyl, benzyl, benzoyl, benzyloxycarbonyl, cinnamoyl, 12-Ado, 7'-amino heptanoyl, 6-Ahx, Amc and 8-Aoc.

21. The compound of claim 1 having the structure:

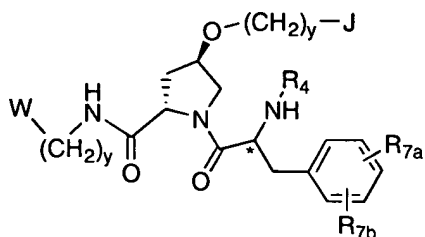


or a stereoisomer or pharmaceutically acceptable salt thereof, wherein y, J, W, Q, R₄, R₅ and R₆ are as defined, and the carbon atom marked with an asterisk can have any stereochemical configuration.

22. The compound of claim 21 having the structure:

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(III)

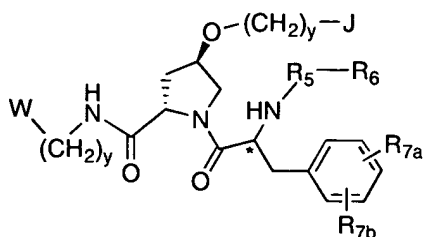


or a stereoisomer or pharmaceutically acceptable salt thereof, wherein y , J , W , Q , R_4 , R_5 and R_6 are as defined, R_{7a} and R_{7b} are optional ring substituents, and when one or both are present, are the same or different and independently hydroxyl, halogen, alkyl, or aryl groups attached directly or through an ether linkage, and the carbon atom marked with an asterisk can have any stereochemical configuration.

23. The compound of claim 22 having the structure:

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(IV)



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or a stereoisomer or pharmaceutically acceptable salt thereof, wherein y , J , W , Q , R_5 , R_6 , R_{7a} and R_{7b} are as defined, and the carbon atom marked with an asterisk can have any stereochemical configuration.

24. A composition comprising a compound of any of the foregoing structures in combination with a pharmaceutically acceptable carrier.

25. A method for altering a disorder or condition associated with the activity of a melanocortin receptor, comprising administering to a patient a therapeutically effective amount of the composition of claim 24.

26. The method of claim 24 wherein the disorder or condition is associated with the activity of a melanocortin-1 receptor.

27. The method of claim 26 wherein the disorder or condition is an inflammatory disorder.

28. The method of claim 25 wherein the disorder or condition is an eating disorder.
29. The method of claim 25 wherein the disorder or condition is sexual dysfunction.